Renumbered Claims

## CLAIM AMENDMENTS

Please cancel claims 15, 38, and 47, without prejudice or disclaimer, as being directed to subject matter that has been withdrawn from consideration.

Please amend the claims as follows:

1. (currently amended) A method for purifying poly(A) mRNA from a sample in a manner that reduces rRNA carryover comprising:

a) incubating a composition comprising:

i) the sample, wherein the sample includes poly(A) mRNA;

ii) a poly(dT) or poly(U) nucleic acid molecule; and

iii) ~~an isostabilizing agent, wherein the isostabilizing agent is~~ tetramethylammonium chloride (TMAC) or tetraethylammonium chloride (TEAC),

under conditions allowing poly(A) mRNA to hybridize with the poly(dT) or poly(U) nucleic acid molecule and inhibiting partial hybridization of the poly(A) mRNA to any rRNA that may be present in the sample; and

b) isolating the poly(dT) or poly(U) nucleic acid molecule and the hybridized poly(A) mRNA[[.]];

wherein rRNA carryover is reduced.

14 ~~2.~~ (currently amended) The method of claim 1, wherein the final concentration of the ~~isostabilizing agent~~ TMAC and/or TEAC in the composition is between about 1.0 M and about 3.0 M.

15 ~~3.~~ (currently amended) The method of claim ~~2~~ 14, wherein the final concentration of the ~~isostabilizing agent~~ TMAC and/or TEAC in the composition is between about 1.2 M and about 2.4 M.

16 ~~4.~~ (currently amended) The method of claim ~~3~~ 15, wherein the final concentration of the ~~isostabilizing agent~~ TMAC and/or TEAC in the composition is between about 1.5 M and about 2.0 M.

6 ~~5.~~ (currently amended) The method of claim 1, wherein the ~~isostabilizing agent~~ TMAC or TEAC is provided to the composition in a hybridization solution.

3 ~~6.~~ (original) The method of claim 1, wherein the composition further comprises CHAPS in a final concentration between about 0.5% and about 2.0%.

8 ~~7.~~ (original) The method of claim 1, wherein the composition further comprises Triton X-100.

9 ~~8.~~ (original) The method of claim ~~7~~ 8, wherein the concentration of Triton X-100 in the composition is between about 0.01% and about 0.1%.

7 ~~9.~~ (original) The method of claim ~~8~~ 6, wherein the hybridization solution further comprises Triton X-100.

4 ~~10.~~ (original) The method of claim 1, further comprising heating the composition at a temperature between about 70°C and about 90°C prior to incubation under hybridization conditions.

10 ~~11.~~ (original) The method of claim 1, wherein the hybridization conditions comprise incubating the composition between about 15°C and 50°C for at least 10 minutes to 48 hours.

11 ~~12.~~ (original) The method of claim ~~11~~ 10, wherein the incubation time is at least 4 hours.

17 ~~13.~~ (currently amended) The method of claim 1, further comprising washing the poly(dT) or poly(U) nucleic acid molecule and the hybridized poly(A) mRNA in wash solution comprising ~~an isostabilizing agent~~ TMAC or TEAC.

18 ~~14.~~ (previously presented) The method of claim ~~13~~ 17, wherein the poly(dT) or poly(U) nucleic acid molecule and the hybridized poly(A) mRNA are washed more than once.

15. (cancelled)

19 ~~16.~~ (currently amended) The method of claim ~~14~~ 18, wherein the concentration of the ~~isostabilizing agent~~ TMAC and/or TEAC in the wash solution is between about 0.05 M and about 3.0 M.

20 ~~17.~~ (currently amended) The method of claim ~~14~~ 18, wherein the poly(dT) or poly(U) nucleic acid molecule and the hybridized poly(A) mRNA are washed at least once in a wash solution with ~~an isostabilizing agent~~ a TMAC and/or TEAC concentration greater than about 1.2 M and at least once in a wash solution with a TMAC and/or TEAC concentration of less than about 0.5 M.

21 ~~18.~~ (original) The method of claim 1, wherein the poly(dT) or poly(U) nucleic acid molecule is linked to a non-reacting structure.

22 ~~19.~~ (original) The method of claim ~~18~~ 21, wherein the non-reacting structure is cellulose.

25 ~~20.~~ (previously presented) The method of claim ~~18~~ 21, further comprising isolating the non-reacting structure linked to the oligonucleotide that is hybridized to poly(A) mRNA.

26 ~~21.~~ (original) The method of claim ~~20~~ 25, further comprising washing the non-reacting structure.

28 ~~22.~~ (original) The method of claim ~~18~~ 21, wherein the non-reacting structure is a bead.

29 ~~23.~~ (original) The method of claim ~~22~~ 28, wherein the bead is magnetic.

30 ~~24.~~ (previously presented) The method of claim ~~23~~ 29, wherein the poly(dT) or poly(U) nucleic acid molecule and the hybridized poly(A) mRNA are isolated from the sample with a magnet.

27 ~~25.~~ (original) The method of claim ~~20~~ 25, wherein the non-reacting structure is isolated from the sample by centrifugation or filtration.

23 ~~26.~~ (previously presented) The method of claim ~~18~~ 21, further comprising eluting the poly(A) mRNA from the non-reacting structure with an eluting solution of low ionic strength.

24 ~~27.~~ (original) The method of claim ~~26~~ 23, wherein the eluting solution comprises sodium citrate.

12 ~~28.~~ (original) The method of claim 1, wherein the poly(dT) or poly(U) nucleic acid molecule is biotinylated.

13 ~~29.~~ (previously presented) The method of claim ~~28~~ 12, further comprising

c) incubating the biotinylated oligonucleotide and the sample with avidin or streptavidin linked to a non-reacting structure; and

d) eluting the poly(A) mRNA from the non-reacting structure with an eluting solution.

5 ~~30.~~ (original) The method of claim 1, wherein the sample or the hybridization solution does not contain guanidinium.

31. (currently amended) A method for purifying poly(A) mRNA from a sample <u>in a manner that reduces rRNA carryover</u> comprising:

a) incubating the sample with a poly(dT) oligonucleotide connected to a non-reacting structure and a hybridization solution comprising tetramethylammonium under conditions allowing poly(A) mRNA to hybridize with the oligonucleotide;

b) isolating the oligonucleotide with the hybridized poly(A) mRNA away from the sample; and

c) washing the oligonucleotide with a wash solution comprising a salt[[.]];

<u>wherein rRNA carryover is reduced.</u>

32. (original) The method of claim 31, wherein the non-reacting structure is cellulose.

34
~~33.~~ (original) The method of claim 31, wherein the oligonucleotide is biotinylated.

35 34
~~34.~~ (previously presented) The method of claim ~~33~~, further comprising

c) incubating the biotinylated oligonucleotide and the sample with avidin or streptavidin linked to a non-reacting structure; and

d) eluting the poly(A) mRNA from the non-reacting structure with an eluting solution.

36 35
~~35.~~ (previously presented) The method of claim ~~34~~, further comprising isolating the non-reacting structure linked to the oligonucleotide hybridized to poly(A) mRNA by centrifugation or filtration.

33
~~36.~~ (previously presented) The method of claim 31, further comprising eluting the poly(A) mRNA from the non-reacting structure with an eluting solution with low ionic strength.

37. (currently amended) A kit, in a suitable container means, comprising:

a) a poly(dT) oligonucleotide linked to a non-reacting structure; and

b) binding solution comprising ~~an isostabilizing agent~~ TMAC or TEAC.

38. (cancelled)

39. (currently amended) The kit of claim 38, wherein the concentration of TMAC and/or TEAC in the binding solution is between about 1.0 M and about 5.0 M.

40. (currently amended) The kit of claim 39, wherein the concentration of TMAC and/or TEAC in the binding solution is about 4.0 M.

41. (currently amended) The kit of claim 39, wherein the concentration of TMAC and/or TEAC in the binding solution is about 2.0 M.

42. (original) The kit of claim 37, wherein the binding solution further comprises at least one detergent.

43. (original) The kit of claim 42, wherein the detergent is Triton X-100 or CHAPS, or a combination of Triton X-100 and CHAPS.

44. (original) The kit of claim 43, wherein the concentration of the detergent in the binding solution is between about 0.001% to about 1.0%.

45. (original) The kit of claim 37, further comprising a detergent in a concentration of between about 0.01% and 0.1%.

46. (currently amended) The kit of claim 37, further comprising a wash solution comprising ~~an isostabilizing agent~~ TMAC or TEAC.

47. (cancelled)

48. (currently amended) The kit of claim 46, wherein the concentration of TMAC and/or TEAC in the wash solution is between about 0.1 M and about 2.0 M.

49. (currently amended) The kit of claim 48, wherein the concentration of TMAC and/or TEAC in the wash solution is about 2.0 M.

50. (original) The kit of claim 37, further comprising an elution solution of low ionic strength comprising a chelating salt.

51. (original) The kit of claim 50, wherein the salt in the elution solution is sodium citrate or EDTA-2Na.

52. (original) The kit of claim 50, wherein the concentration of the salt in the elution solution is between about 0.1 mM and about 100 mM.

53. (original) The kit of claim 37, wherein the oligonucleotide is biotinylated.

54. (original) The kit of claim 53, wherein the non-reacting structure is a streptavidin or avidin matrix.

55. (original) The kit of claim 37, wherein the non-reacting structure is cellulose.

56. (original) The kit of claim 37, wherein the non-reacting structure is a bead.

57. (original) The kit of claim 56, wherein the bead is magnetic.

58. (original) The kit of claim 57, further comprising a magnetic stand.

59. (original) The kit of claim 37, further comprising a filtration device.

60. (original) A kit, in suitable container means, comprising:

a) a poly(dT) oligonucleotide linked to cellulose;

b) hybridization solution comprising tetramethylammonium (TMAC) in a concentration of between about 1.2 M and about 4 M and Triton X-100 in a concentration of between about 0.03% and about 0.1%;

c) a first wash solution comprising TMAC in a concentration of about 2 M;

d) a second wash solution comprising TMAC in a concentration of about 0.4 M; and

e) elution solution having a total ionic strength of less than 0.01.

2/61. (previously presented) The method of claim 1, wherein the isostabilizing agent is TMAC, and wherein the nucleic acid molecule is poly(dT) and is linked to a non-reacting structure, and further comprising c) washing the poly(dT) nucleic acid molecule with a wash solution comprising a salt.